Funding and Investment Policy Statement

of

The Municipal Employees' Retirement Fund of the City of Hartford

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Adopted by
The City of Hartford Pension Commission
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Table of Contents

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Article I. **<u>Introduction</u>**

This policy sets forth the general principles that govern the investment of the Municipal Employees' Retirement Fund (MERF), as established by the City of Hartford Pension Commission. Specifically, this document addresses the following issues as they relate to this matter:

- governing authority;
- funding policy;
- risk tolerance;
- asset allocation;
- investment management structure;
- investment manager guidelines;
- MERF as a corporate citizen; and
- performance evaluation.

This investment policy statement reflects the Commission's preferences regarding a number of important pension management issues. It is also an outline of its long-term strategic planning based on an analysis of the capital markets; the MERF's financial condition and the structure of the pension liabilities. In formulating this policy, the Commission has sought to allow sufficient flexibility to capture investment opportunities as they occur, yet establishes reasonable parameters to ensure that prudence and care are exercised in the execution of the MERF investment program.

The authority to amend the specific goals, objectives and guidelines as contained in this document rests solely with the Commission unless otherwise established by the City of Hartford Municipal Code. The Commission shall view its investment policy statement as the standard against which to review any proposed policy changes.

Article II. **<u>Governing Authority</u>**

Pursuant to the Charter of the City of Hartford, the City Treasurer and the Commission are the named fiduciaries of the MERF. The Commission has the responsibility to administer the MERF and, in so doing, to adopt rules and regulations governing the same. On the recommendation of the City Treasurer, the Commission also must approve the investment of all pension funds and the retention or termination of investment advisors.

An elected official of the City of Hartford, the City Treasurer holds the position of Secretary of the Commission *ex officio*. The City Treasurer has the sole responsibility for the care and custody of all MERF assets except to the extent that such responsibility is delegated by her to an appropriate entity with the approval of the Commission and consistent with her other legal obligations. The City Treasurer also has the sole responsibility to invest the assets of the MERF, as well as to recommend the selection of and contract with all investment advisors and other financial service providers, subject to the approval of the Commission.

Article III. **Funding Policy**

The overall goal of the Commission is to maintain a fully funded plan, such that its assets at least equal the present value of its projected benefit obligations. In addition to helping to secure plan participant benefits, it is believed that this goal will help the City of Hartford maintain a reasonable price for its debt, and otherwise remain on a solid financial footing so as to ensure stable and predictable City rates of contribution to the MERF.

Article IV. **Investment Objectives**

Given the MERF's adequate funding and its participant demographics, the Commission has determined to take a long-term view in establishing the Fund's risk-reward parameters in order to safeguard the MERF's principal while meeting overall investment and return objectives. The Commission also adheres to the capital market theory that maintains that over the long term, varying degrees of judicious investment risk-taking are rewarded with incremental returns. Consequently, while capital preservation is regarded to be of paramount importance, the Commission regards prudent risk-taking as justifiable.
The investment objectives for both the overall portfolio and the individual portfolio components are as follows:

1. In a full market cycle, the MERF's overall rate of return is expected to be equal to or exceed the rate assumed by sound actuarial principles; it is also expected that the MERF will achieve a real rate of return of 350 basis points over and above inflation as measured by the Consumer Price Index. In case of a disparity between the two investment targets, the higher rate shall prevail.

2. MERF's individual asset classes are expected to achieve returns consistent with or in excess of specific market benchmarks over the length of a market cycle. Both objectives will be incorporated in periodic reviews of the MERF's performance.

3. The portfolio managed by each MERF manager is expected to (a) primarily generate returns with risk (defined as volatility of returns) that rank in the bottom quartile and (b) secondarily, generate returns, net of fees and expenses, that rank at or above the 33rd percentile of a universe of managers with a similar style over rolling three year periods.

Article V. **Asset Allocation**

The MERF's asset mix shall be set by the Commission from time to time based upon (1) the structure of the pension liabilities, (2) capital market theory, (3) its full funding policy and (4) its liquidity needs. The following table shows the target strategic and permissible ranges for the allocation of assets within asset classes, as adopted by the Commission. These ranges are intended to serve as boundaries for the MERF's individual asset classes as more particularly described in, and in which any investment is further subscribed by, the provisions of Article VI. They will help signal the need to rebalance such classes when allocation weights fall outside these ranges.

The Commission believes that its adoption of these targets and ranges will provide an appropriate mechanism for maintaining the integrity of the asset allocation policy.

City of Hartford
Municipal Employees' Retirement Fund
Strategic Asset Allocation Policy and Relative Ranges

	Lower Bound	Target	Upper Bound
Domestic Equity	14.5%	18.0%	21.5%
Private Equity	4.0	7.0	10.0
International Equity	15.5	20.0	24.5
Emerging Equity	3.5	5.0	6.5
Total Equity		**50.0%**	
Inflation Linked Bonds	9.5	10.0%	10.5
U S Core Fixed Income	9.0	10.0	11.0
Global Fixed Income	5.5	6.0	6.5
Long Term Fixed Income	13.5	15.0	16.5
Emerging Market Debt	4.0	5.0	6.0
High Yield	2.0	2.5	3.0
Total Fixed		**48.5%**	
Cash		**1.5%**	
Total		**100.0%**	

Note: Within the bands constraining total exposure in the equities and fixed-income asset classes, the permissible range for equities overall is from 40% to 60%, and for fixed-income from 40% to 60% of the total portfolio.

Asset classes comprising equity include domestic large-, medium- and small-cap equity, international equity, alternative investments and real estate, with a target exposure of 50% of the MERF's total portfolio.

The remaining 50% of assets are allocated to global fixed-income instruments.

The asset allocations will be reviewed quarterly with the maximum interval between necessary rebalancing being one year (as of fiscal year end) such that, if an asset class exceeds the ranges noted in the preceding table, there will be at least one rebalancing transaction per fiscal year. In addition, rebalancing transactions will occur no more than once per quarter with a preference for no more than semi-annual activity.

It is understood that for all asset classes, exceptions to preferred policy weights may be acceptable given certain market and other conditions, providing that such exceptions are made consciously, monitored carefully by the City Treasurer and her staff and reported to the Pension Commission.

Policy benchmarks for the asset classes are the Russell 3000 for domestic equities (which, for these purposes, shall include all equity investments in any alternative assets); Russell Global ex U. S. Equity Index for international equities; a custom index defined as 31%Lehman Government Credit Index/20.6% Lehman Brothers Aggregate Index/20.6% Lehman Brothers U. S. Tips Index/12.4% Lehman Brothers Global Aggregate Unhedged index/10.3% J P Morgan EMGI Global Index/5.1% Citigroup High Yield Indexfor global fixed income, except that any alternative investments (other than real estate related investments) which are fixed-income in nature will be benchmarked against the Lehman Aggregate with an adjustment for any unusual risks; and real estate investments will be benchmarked against an appropriate National Council of Real Estate Investment Fiduciaries (NCREIF) index); and Salomon Smith Barney World Government Bond Index Ex U. S. for international fixed income.

The Commission disfavors market timing as an investment strategy. Changes in long-term asset allocation targets are therefore expected to be infrequent. The Commission anticipates that it will revise these targets only when it is clear that significant changes have occurred in the demographics of the participant group and/or in the capital markets such that assumptions upon which the present allocations have been made no longer appear reasonable, or as may be necessary from time to time pursuant to the findings of a periodic asset/liability study of the MERF. Accordingly, the MERF managers should pursue a strategy of being fully invested in the market consistent with the foregoing guidelines to ensure that cash-equivalent positions do not interfere with the Commission's asset allocation strategy. In addition, in order to meet the MERF's cash disbursement needs, the Commission may direct that dividends and interest income from the investment managers' accounts be swept into the MERF's short-term investment fund (STIF) account.

Article VI. **Asset Class Guidelines**

The specific types of permissible investments included within each asset class, and special limitations or other considerations governing the investment of any funds therein, are set forth below:

A. Domestic Equities

Investments in domestic equities are defined as commitments to U.S. dollar denominated, publicly-traded common stocks of American companies and securities convertible into common stock. The common stock portfolio should be diversified by the number of stocks, industries, economic sectors and other appropriate investment characteristics.

The aggregate domestic common stock portfolio is expected to produce, over time, a total, risk-adjusted return greater than that of the Russell 3000. To accomplish this objective, a combination of different investment styles and capitalization ranges may be employed in the portfolio's management. An investment in any single issue may not exceed 5% of the outstanding shares. In the case of small or illiquid companies, the MERF's commitment to any single issue may not exceed 5% of the average daily float. The securities of any single issuer may not exceed 5% of the manager's total portfolio market value. Finally, total investment by domestic equity managers in non-U.S. holdings and ADRs shall not exceed the level within the Russell 3000 index (or the level within an individual's manager's respective benchmark). ADRs shall consist only of Level III ADRs.

Any cash reserve held by common stock portfolio managers will be counted for asset allocation and investment performance as common stock. Common stock portfolio managers will inform a designated person on the MERF staff of any significant changes contemplated in their cash reserve and adhere to the guidelines on cash approved by the Commission.

All cash normally will be invested in short-term investment funds of the custodian bank; unless otherwise directed by the City Treasurer with the approval of the Pension Commission.

Individual managers may be given guidelines that do not conform with the overall domestic equity policy so long as the aggregate of the managers' portfolio is in line with policy guidelines.

The performance of individual managers shall be judged based upon the foregoing principles as well as with reference to appropriate external indices approved by the Commission. The Commission's emphasis will be on long-term (minimum of two years) rather than short-term performance.

B. International Equities

Investment in international equities is defined as commitments to common stock, preferred stock, American Depository Receipts (ADRs) or other permissible securities issued by companies domiciled outside the United States.
The aggregate international common stock portfolio is expected over time to produce total, risk-adjusted returns greater than the Russell Global ex U. S. Equity Index. To accomplish this objective, a combination of different investment styles and capitalization ranges may be employed in the portfolio's management. An investment in any single issue may not exceed 5% of the outstanding shares. In the case of small or illiquid companies, the MERF's commitment to any single issuer may not exceed 5% of the average daily float. The securities of any single issuer may not exceed 5% of the manager's total portfolio.

Any cash reserves held by international stock portfolio managers will be counted for asset allocation and investment performance as common stock. As is the case for domestic equity portfolio managers, all cash will be invested in short-term investment funds of the custodian bank unless otherwise directed by the City Treasurer with the approval of the Pension Commission.

Individual managers may be given guidelines that do not conform with the overall international equity policy so long as the aggregate of the managers' portfolio is in line with policy guidelines.

The performance of individual managers shall be judged based upon the foregoing principles as well as with reference to the appropriate external indices approved by the Commission. The Commission's emphasis will be on long-term (minimum of two years) rather than short-term performance.

C. Fixed Income

Investments in fixed-income securities are defined as commitments to government and corporate bonds, preferred stocks, mortgage investments, non-U.S. bonds, and annuities. This asset class is expected to provide regular, predictable income and the stability that inherently eludes equity investments. Fixed-income instruments should not be exposed to significant levels of interest-rate risk ;credit risk or currency risk. The duration of the fixed income segment of the portfolio should remain within a range of 80% to 120% of the duration of a representative market index (e.g., Lehman Brothers Aggregate Bond Index).

There are no limitations on the fund's investment in the following categories of fixed income securities:

- Bonds or notes issued by the U.S. government or U.S. government agencies.
- Mortgage-back pass through securities issued by U.S. government agencies.

- Collateralized mortgage obligations (CMOs) with volatility characteristics less than or equal to those of the underlying collateral securities.

- Investment grade U.S. corporate bonds or notes issued in the U.S. and denominated in U.S. dollars. "Investment grade" issues shall be defined as those rated BBB- (or equivalent) or higher by at least two major rating agencies.

- Asset-backed securities backed by credit card, auto, and home equity loans or other, creditworthy receivables that are rated AAA (or equivalent) by at least one major rating service.

In order to take advantage of opportunities for diversification and higher risk-adjusted returns, the Fund may invest up to 15% of total fixed income assets in any one or more of the following types of securities, subject to the guidelines stipulated below.

- Collateralized mortgage obligations (CMOs) with volatility characteristics greater than those of the underlying collateral securities. No more than 10% of the total fixed income portfolio may be invested in such securities. No investments are permitted in any type of stripped mortgage derivative, including interest-only, and principal-only STRIPS (IOs and POs). Inverse floating rate securities are also prohibited and other unusual structures, such as securities with coupon rates tied to an unrelated asset class.

- Non-investment grade corporate bonds or notes issued in the U.S. and denominated in U.S. dollars. Non-investment grade issues shall be defined as those that lack a rating of BBB- (or equivalent) or higher from least two major rating agencies. No more than 15% of the total fixed income portfolio may be invested in such securities.

- Privately placed or non-U.S. government agency-issued mortgage-backed securities, including commercial mortgage-backed securities, and privately placed corporate securities, including those issued under Section 144A of the

In addition, the Fund may invest up to 20% of total fixed income assets in any one or more of the following types of securities, subject to the guidelines stipulated below

- Sovereign issuers of developed industrial countries that maintain a credit rating of A or higher from at least two major rating agencies. No more than 15% of the total fixed income portfolio should be invested in such securities.

- Debt instruments that do not meet the above criteria, including those issued by any sovereign entity located in Eastern Europe, Latin America, and the Pacific

Rim. No more than 6% of the total fixed income portfolio may be invested in such securities. Individual investment managers are not permitted to make investments in this category unless the Commission explicitly grants them permission to do so.

Securities and Exchange Commission code. No more than 10% of the total fixed income portfolio may be invested in any combination of these securities. In addition, any of these issues that either carry below-investment grade ratings or, if no rating is available, have financial characteristics similar to publicly-traded below-investment grade issues will count toward the 15% limitation on below-investment grade securities.

- Investment-grade taxable or tax-exempt debt securities issued by U.S. municipalities. No more than 15% of the total fixed income portfolio may be invested in such securities.

- Fixed income securities or preferred stock securities that are convertible into common stock. No more than 5% of the total fixed income portfolio may be invested in such securities. In addition, any convertible securities that either carry below-investment grade ratings or, if no rating is available, have financial characteristics similar to publicly-trade below-investment grade issues also will count toward the 15% limitation on below-investment grade securities.

- Any cash reserve held by the fixed income managers will be counted for asset allocation and investment performance as fixed-income investments. Fixed-income portfolio managers shall inform a designated person on the MERF staff of any significant changes contemplated in the cash reserve and adhere to cash guidelines approved by the Commission. All cash normally will be invested in short-term investment funds of the MERF's custodian bank, unless otherwise directed by the City Treasurer with the approval of the Pension Commission.

Individual managers may be given guidelines that do not conform with the overall fixed-income policy so long as the aggregate of the managers' portfolio is in line with policy guidelines.

The performance of individual managers shall be judged based upon the foregoing principles as well as with reference to appropriate external indices approved by the Commission. The Commission's emphasis will be on long-term (minimum of two years) rather than current performance.

D. Alternative Investments

Alternative investments consist of investments in relatively illiquid assets, which, by virtue of their illiquidity, command a premium return over comparable publicly traded securities. Examples of these assets include non-registered limited partnership interests, other private placement securities, and equity positions in real estate. To ensure the optimal implementation of this sub-strategy, specific Alternative Investment Guidelines with respect to assets other than those related to real estate have been developed and are included herewith as Schedule A. Economically Targeted Investments ("ETIs") may be included in this asset class to the extent they are expected to provide important programmatic results for the City and may be effected in a manner consistent with the City Treasurer's and Commission's fiduciary obligations. It is expected that the total capital committed to ETIs will not exceed 4% of the MERF's aggregate market valuation at the time any such commitments are made. Except as may otherwise be provided in Schedule A, no ETIs shall be made without the explicit approval of the Commission.

Investments in real estate may include participation in commercial, industrial, retail or residential properties and other related opportunities through the acquisition of limited partnership interests, membership interests in limited liability companies or similar investment vehicles. As the need may arise, additional guidelines relative to the precise level and timing of such investments shall be developed by the City Treasurer in conjunction with an independent consultant specializing in real estate and submitted to the Commission for its approval. Real estate investment shall not include significant use of leveraging. Any significant allocation to real estate will reflect appropriate diversification by class of property and location. No investments in real estate shall be made without the explicit approval of the Commission.

Article VII. **Use of Derivatives**

Derivative instruments are defined as any contract or investment vehicle whose performance, risk characteristics, or value is based on a specific asset, interest rate, or index value. Derivative instruments may be used for any of the following purposes:

- To gain broad stock or bond market exposure in a manner that does not create the effect of leverage in the overall portfolio.

- To convert financial exposure in a given currency to that of another currency (e.g., to hedge Japanese Yen exposure back to the U.S. dollar). Any and all international managers may enter into foreign exchange contracts on currency provided that: a) such contracts are one year or less, and b) use of such contracts is limited solely and exclusively to hedging currency exposure existing within the manager's portfolio. There shall be no foreign currency speculation or any related investment activity.

- To adjust the duration of a bond portfolio in a manner that is consistent with the accepted approach of the manager and other policies and guidelines provided to the manager.

- To make portfolio adjustments that are consistent with other elements of the MERF's investment policies and guidelines and that, when viewed from a total portfolio standpoint, do not increase risk or expected volatility of the rate of return in the portfolio.

All other uses of derivatives are prohibited unless specifically approved by the Commission. Investment managers are expected to have internal risk management programs in place to ensure that derivatives-based strategies do not result in magnified risks to the portfolio. Investment managers are also expected to be familiar with and incorporate those risk standards promulgated by the Risk Standards Working Group.

Article VIII. **Diversification and Investment Manager Guidelines**

Assets are to be broadly diversified so as to limit the impact of large losses in individual investments on the total portfolio. Index funds may be used to diversify assets and as a vehicle to temporarily invest monies that are to be re-allocated. With regard to diversification, the following levels of indexation for each asset class shall apply: (a) for domestic equity, 25-40%; (b) international equity, 20-35%; and (c) fixed income, 10-30%. Professional investment managers will be selected and monitored based on (i) conformity of investment style with the MERF's return objectives, (ii) demonstrated ability to achieve above average results consistently, and (iii) continuity of senior personnel.

The Commission desires to maintain a well-diversified investment manager program. Toward this end, the Commission will refrain from placing additional funds with investment managers who exercise discretionary authority over more than 10% of the MERF's inventory of assets. This restriction shall not apply to passively managed (index) portfolios.

While it is the Commission's preference that the MERF be primarily externally managed; the Commission, at its discretion, may choose to have a portion of the actively managed portfolio assigned to the City Treasurer's Office.

The specific guidelines unique to each manager will be developed cooperatively by the City Treasurer and manager and shall be incorporated into the Investment Management Contract executed by the City Treasurer and the manager, subject to approval by the Pension Commission. Sector and security selection of investment grade instruments and the timing of purchases and sales are delegated to the investment manager, subject to any restrictions established by the Commission. In case of a conflict between a manager's specific guidelines and the general guidelines of the Fund, the former shall prevail.

The Commission may also select one or more managers whose investment styles do not conform to the guidelines herein, providing the total of the funds so managed does not exceed 10% of the total market value of the pension fund as of the date the managers are hired.

Article IX. **Liquidity**

Owing to such factors as investment strategy, cash flow and benefit payments, the Commission delegates to the City Treasurer the authority to maintain a portfolio to meet liquidity requirements, subject to the Commission's preference that at least a two-month cash cushion be maintained for benefit payments.

Article X. **Prohibited Transactions**

The following transactions are prohibited except as previously mentioned in Article VII and specifically included in the manager agreement: securities lending (except as the City Treasurer may contract with the MERF's master custodian bank or other approved provider), buying on margin, short sales and purchase/sale of derivatives including, but not limited to, interest-only strips, principal-only strips, options, futures, swaps, inverse floaters and other unusual structures, such as securities with coupon rates tied to an unrelated asset class. For the purpose of this investment policy statement, derivatives shall not include (a) 15-and 30 year GNMA, FNMA and FHLMC mortgage passthroughs, or (b) fixed-rate and adjustable-rate Collateralized Mortgage Obligations (CMOs), or (c) corporate mortgage-backed securities, or (d) low-risk asset-backed securities collateralized by home equity loans, credit cards and automobile loans, or (e) zero-coupon Treasury bonds.

Unless specifically authorized by the City Treasurer, transactions that involve a broker acting as a "principal," where such broker is also the investment manager who is making the transaction, are prohibited;

Transactions shall be executed at competitive cost, or within the parameters established by the City Treasurer for directed brokerage transactions.

Article XI. **Performance Evaluation**

The Commission shall regularly monitor the investment performance of the MERF at the total fund, asset class, and individual manager levels. The Commission will analyze the Fund's overall results relative to the rates of return available over a given market cycle.

For performance evaluation purposes, rate of return objectives will be based on a time-weighted total return calculation. These return objectives will be long-term based upon compounded and annualized market returns, adjusted for the manager's risk and style, and will be examined on a net-of-fees basis.

A report of the performance of the MERF and each individual manager will be prepared monthly and quarterly by the City Treasurer and submitted to the Commission for its review. It is expected that such reports will be confirmed by or reconciled with the performance data compiled by an independent consultant or the MERF's master custodian bank. On the asset class and individual manager levels, the Commission will use designated benchmarks and the investment guidelines as essential parts of the criteria to monitor investment performance. As previously mentioned, the City Treasurer and investment manager shall cooperatively develop the specific guidelines unique to each manager, and these guidelines shall be incorporated into the Investment Management Contract executed by the City Treasurer and the manager. In the case of a conflict between a manager's specific guidelines and the general guidelines of the Fund, the former shall prevail. In addition, the Commission will hold annual meetings with each individual manager to review performance and retain outside investment advisors as deemed appropriate and in the best interests of the MERF.

Article XII. **MERF as a Corporate Citizen**

The Commission affirms the City of Hartford's commitment to the principles of affirmative action, non-discrimination and equal opportunity employment. In this regard, the Commission shall approve guidelines for developing business and contractual relationships with minority-owned and female-owned investment management firms, broker-dealers and consultants and may put in place guidelines consistent with industry best practice, with periodic reviews.

Article XIII: **Ongoing Supervision of Assets**

It is the City Treasurer's obligation and responsibility to carry out the day-to-day administration of the MERF. Consequently, the City Treasurer is expected to establish written procedures for the MERF's operation consistent with this investment policy. Such procedures shall include a system of internal controls, which shall be documented in writing.

Article XIV**:** **Other Issues**

The City Treasurer shall be responsible for managing and exercising the MERF's proxy-voting responsibilities. The Commission expects proxies to be voted vigorously and in the best interests of the MERF. Additionally, the City Treasurer shall be responsible for the management and use of the pool of soft dollars generated by the MERF's transactions, if any. Such funds are to be used exclusively toward the purchase of performance measurement, research, general consulting and administrative services.

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SCHEDULE A

CITY of HARTFORD

MUNICIPAL EMPLOYEES' RETIREMENT FUND (MERF)

ALTERNATIVE INVESTMENT GUIDELINES

CITY of HARTFORD
MUNICIPAL EMPLOYEES' RETIREMENT FUND (MERF)
ALTERNATIVE INVESTMENT GUIDELINES

I. INTRODUCTION

These alternative investment guidelines have been established to formalize a process by which the MERF can invest in specific alternative investment opportunities. Alternative investments represent a large and diverse set of investment opportunities which must be properly structured and managed, and must be compatible with the general objectives of the broader investment policy.

Alternative investments consist of investments in relatively illiquid assets which, by virtue of their illiquidity, command a premium return over comparable publicly-traded securities. This premium is called the liquidity premium. Since the MERF has a relatively long-term investment horizon (like the majority of defined benefit plan sponsors), its risk tolerance for these more illiquid investments is higher than other more short-term oriented investors. As a result, through its willingness to invest on a private basis, the MERF should be in a position to capture the liquidity premium. Examples of these assets include non-registered limited partnership interests and equity positions in real estate.

The fundamental reasons for including these illiquid, higher risk, and higher returning investments within an investment portfolio include:

- Potential for higher returns than in the traditional equity markets (due to participation in inefficient markets).

- Exposure to investment opportunities not available in the public capital markets

- Diversification

- Long-term focus

Over the last several years, other plan sponsors similar to the MERF have increased or enacted alternative investment programs for the reasons cited above. As these types of investments become more institutionalized, it is a logical step for the MERF to implement an alternative investments program.

II. GENERAL CHARACTERISTICS

Alternative investments frequently involve the indirect acquisition of interests in the equity or debt of private or public companies by negotiation. Exposure to these investments generally is provided through the purchase of limited partnership interests in limited partnerships that are formed for the purpose of providing a vehicle through which sophisticated, tax-exempt, institutional investors may prudently avail themselves of these opportunities. In this way, only the limited partnerships themselves (as opposed to the institutional investors) acquire securities that constitute the actual equity or debt of these companies.[1]

It is the intention of the MERF to emphasize potential high-return investments associated with the special, growth capital opportunities tempered by reasonable levels of investment risk.

The Alternative Investment Portfolio, in total, should be diversified by economic sectors, vintage year, number of transactions, geographic location, and by stage of company maturity. In all cases, the MERF shall be a long term investor, taking advantage of private negotiation and the liquidity premium to achieve superior returns with lower risk through diversification.

III. IMPLEMENTATION and INVESTMENT FORMAT

Implementing an alternative investments program requires significant resources. Since the MERF has finite staff resources, the MERF will outsource the oversight and management of its alternative investment program to an alternative investment consultant (the "AIC"). Under this structure all due diligence functions will be delegated to and performed by the AIC, subject to the policies detailed herein.

The AIC will use a two-tier approach in the implementation of the MERF's Alternate Investment Program. First, the AIC shall identify, review and recommend limited partnership or like vehicles that will meet the objectives and broad investment criteria of the MERF. These vehicles may be ones that directly invest in the debt and/or equity of individual companies or ones that invest in other limited partnerships that, in turn, make such investments (i.e. "fund-of-funds"). During the first two to three years that the Alternate Investment Program is being initiated, the Commission expects that (except with regard to investments that may be made in ETIs, if any) all assets committed to any Alternative Investments will be made via the fund-of-funds approach.

[1] While investment in such limited partnerships appears to be the most common method by which exposure to this asset class is effected by many institutional investors, reference to them here or elsewhere in this document is not intended to exclude the possibility of the MERF's obtaining that exposure in some other fashion which otherwise comports with these guidelines. Without limiting the generality of the foregoing, any reference in these guidelines to partnerships or their partners or any interests in either shall be deemed to include limited liability companies, and their members and interests in either, respectively.

In the case of funds-of-funds, the City Treasurer, with the Commission's approval, will determine a pre-specified amount of committed capital that each fund-of-funds is to then allocate to specific partnerships that meet its due diligence screens, consistent with the MERF's objectives. Depending on the amount of capital committed to any fund-of-funds, this strategy may be executed through either a commingled or separate account.

The AIC also will assist the City Treasurer and the Commission in reviewing and structuring the terms of potential Economically Targeted Investments that may be identified by the Treasurer or the Commission ("ETIs"). ETIs shall consist of investments in the equity or debt of public or private companies (or entities such as limited partnerships, limited liability companies or like entities which are investing in the equity or debt of public or private companies) located in the city of Hartford. (ETIs should only be executed if their investment return objectives are consistent with those of the broader Alternative Investment Portfolio.)

Using an AIC in the foregoing capacities is intended to provide a "fiduciary buffer" for the City Treasurer and Pension Commission as they gain insight into the issues of alternative investment management.

To the extent that the MERF considers a specific partnership or investment having an ETI emphasis, the AIC, in addition to performing typical due diligence tasks, may be asked to: (i) assist in the development of further policies and guidelines to accommodate specific ETI issues; (ii) performing specialized partnership and/or investment due diligence and selection; and/or (iii) assist in the development of overall portfolio structuring with consideration for ETIs.

IV. RISK MANAGEMENT ISSUES

A. Investment Vehicles

All investments in this asset class shall be structured so that the MERF's exposure in any investment shall not exceed the amount of capital the Commission has approved to be committed thereto.

B. Lack of Liquidity

Alternative Investments are investments which lack liquidity (but for certain limited market opportunities created by legislation, regulations or rules such as Rule 144A of the Securities Exchange Act of 1934) and have time horizons typically in the range of eight to ten years. The secondary market for such investments is mitigated to some extent by specific "exit" rights (e.g., registration rights, or puts and calls) that can be negotiated. As the nature of pension liabilities calls for a long-term investment horizon, the MERF is well situated to manage the lack of liquidity in light of its long term investment objectives.

C. Structuring

The MERF (through the AIC and counsel) will seek to negotiate and structure specific fundamental rights and protections that will limit the MERF's exposure as well as provide mechanisms for taking remedial action when appropriate. Depending on the form of investment, these basic rights and protections may include: limited partner rights provisions, key-person or "for cause" termination provisions, and specific "exit" or voting rights in the event of a change in control or a material adverse change in the general partner of the limited partnership.

D. Investment Evaluation Standards

The general partners of any partnerships in which the MERF invests must establish and adhere to investment evaluation and monitoring criteria, which, depending on the form and character of the investment, will set minimum standards for those tasks that should be met in each instance.

E. Monitoring

Among the most important systems and procedures to be established by the AIC are those that relate to monitoring. Systems must be developed so that information from these reports is properly analyzed and, when appropriate, remedial action taken. In many respects, monitoring alternative investments is different than monitoring publicly-traded securities since the private investor possesses greater detail and more timely information and has typically negotiated, prior to closing, specific rights that enable it to take remedial action.

V. ALLOCATION OF ASSETS

The MERF Alternative Investment Program is targeted to be zero to seven percent (0% to 7%) of total fund assets at market value. Commitments of assets each year should occur at a level that ensures a reasonable, controlled entry into the asset class. The alternative investments asset class is considered an equity investment, with a high expected return and restricted liquidity.

VI. PORTFOLIO STRUCTURE

The Alternative Investments Program portfolio shall be managed to mitigate a variety of risks associated with investing in private markets. Four primary approaches will be used to manage investment risk: namely, (i) utilizing the Advisor to assist in structuring the portfolio and selecting investments, (ii) investing only in private partnerships (or in vehicles that provide equivalent liability protection) while avoiding direct investments, (iii) limiting the size of investment/commitment in specific partnership vehicles, and (iv) investing across multiple partnerships (with the understanding that the use of funds-of-funds allows investors to gain rapid access to multiple partnerships).

In order to make meaningful investments across several partnerships, the MERF generally is expected to make commitments of $5 to $10 million, and shall not, in any event, commit more than $10 million to each Individual Partnership (as defined in Section VII below), directly or through a fund-of-funds partnership, and no more than $30 million to any one fund-of-funds partnership. Over time, the general partner of each partnership will then invest these assets across a portfolio of investments in order to manage the risk of the partnership. The Commission will review the overall commitment and minimum partnership commitment levels periodically as MERF's assets increase and may adjust these levels accordingly. In addition, from time to time, the Commission, on the City Treasurer's recommendation, may also consider committing additional assets to specific ETI-oriented opportunities. Such commitments will also be restricted to limited partnerships or equivalent vehicles. Commitments to ETI-oriented partnerships should be in the range of $1 to $3 million and in no event will exceed $5 million per investment.

To further manage the investment risk of the Alternative Investment Program portfolio, the MERF shall seek to maintain a prudent level of diversification. The types of diversification factors that may be considered include, but are not necessarily limited to:

1. Economic sectors (e.g. technology, healthcare, financial services, etc.);

2. Form of investment (e.g., LBOs, venture capital, real estate, hedge funds, etc.);

3. Expected payback period;

4. Geography (i.e. locations of companies in which investments are made, although this may be a secondary issue); and

5. Time (i.e. the vintage years of the partnerships), unless a specific sub-market is deemed to be extremely over or under-valued.

VII. ANALYSIS OF LIMITED PARTNERSHIP TRANSACTIONS

The MERF's exposure to limited partnerships which invest in the equity or debt of public or private companies (herein, "Individual Partnerships") will be effected primarily through the "fund-of-funds" approach. In those instances, responsibility for performing due diligence with respect to such Individual Partnerships will fall on the general partners of the funds-of-funds. However, with respect to Individual Partnership opportunities in which the MERF may invest directly, the MERF will require separate analyses. The MERF will utilize the services of the AIC to perform these efforts.

Analysis of Individual Partnerships

Recommendations to the City Treasurer by the AIC concerning a specific partnership opportunity will be based upon, among other factors, the specific strategy presented by the general partners, then-current market conditions, the experience and competence of a general partner's staff, and their ability to implement the partnership's specific investment strategy. The general partners of the partnership will then analyze and fund individual investments in portfolio companies of the limited partnership. Expenses for limited partnership transactions will be provided for in the limited partnership documents.

In selecting an Individual Partnership the following criteria should be evaluated:

1. Organization
    a. alternative investment experience
    b. experience with investing and managing ETIs
    c. ownership

2. Type of investments
    a. liquidity
    b. diversification by sector, particularly within the ETI region

3. Acquisition process
    a. how investments are introduced to the firm
    b. the committee process

4. Investment management
    a. credentials of investment managers
    b. responsibilities of hands-on investment managers versus supervisory staff

5. Sell criteria

6. Use of leverage

7. Staff
    a. depth of staff
    b. incentives

8. Size of limited partnership

9. Size of investments

10. Size of minimum involvement

VIII. DUE DILIGENCE

A due diligence review by the AIC will be required before any commitments are undertaken by the MERF and will normally include but shall not be limited to the following, when applicable:

1. A review of whether the proposed investment falls within and complies with the MERF's Investment Policy Statement and these guidelines;

2. A review and analysis of all pertinent offering documents, including offering memorandums, research reports, annual and quarterly reports, and other necessary documents;

3. A review and analysis of the general partners' track record including related and unrelated investments;

4. If applicable, a review and analysis of the general partner's projected financial operating results;

5. A review and analysis of the market opportunity exploited by the partnership;

6. Third-party reference checks with prior limited partners, co-investors, management of companies in portfolio, key suppliers, customers and, where applicable, competitors;

7. A review and analysis of all relevant legal documents pertaining to the partnership and its general partners, including, but not limited to, the limited partnership agreement, major contracts, outstanding debt and equity instruments, insurance policies, instruments of indebtedness, corporate instruments, board minutes and any special agreements with other major investors;

8. A review of the general partner's management and ownership structure.

In the case of Individual Partnership opportunities, the AIC shall submit a summary report of its due diligence efforts and findings to the City Treasurer and the Commission before they approve any level of commitment. In addition to the foregoing and depending on the circumstances surrounding a potential investment, the City Treasurer may recommend that an additional independent expert be retained to provide further analysis and commentary as to the merits of a particular investment.

IX. INVESTMENT EVALUATION STANDARDS

All private partnership transactions will be evaluated based on fiduciary standards with reference to ERISA or equivalent standards as appropriate. Because of its private, illiquid nature, the overall Alternative Investment Program will be expected to achieve a premium return above commensurate marketable securities portfolios. To establish a numeric return target, the alternative investments portfolio, in the aggregate, will be expected to achieve an average internal rate of return equal to the MERF's domestic equity return assumption plus 500 basis points per year over an appropriate investment cycle (typically between five and 10 years for privately-held investments). The expected internal rate of return for individual private partnerships should be in the range of 10-25%, depending on their respective roles of balancing risk and return with the aggregate portfolio.

X. MONITORING AND REPORTING

The AIC will have primary responsibility for monitoring the MERF's investments in this asset class using material provided by the general partners, including attending periodic general partners' meetings and holding periodic meetings with the Commission to review all investments included in a specific partnership portfolio. The City Treasurer shall review and provide the Commission with a report regarding the performance of the aggregate Alternative Investments Portfolio (including all fund-of-funds and ETI-oriented and other partnerships) at least semi-annually.

XI. INVESTMENT TIME FRAME

Limited partnership investments will have clearly specified liquidation and maturity terms. It is the Commission's desire that alternative investments completely return invested capital after a six-year period.

XII. DOCUMENTATION

Due to the complex nature of alternative investment transactions, the City Treasurer and Pension Commission may select specialized legal counsel to assist them in determining the legal merits of any proposed investment or to document or assist in the negotiation of the investment terms negotiated by the AIC.

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APPENDIX A TO SCHEDULE A OF THE FUNDING AND INVESTMENT POLICY STATEMENT OF THE CITY OF HARTFORD MUNICIPAL EMPLOYEES' RETIREMENT FUND

INVESTMENT EVALUATION CRITERIA
For
AIC-RECOMMENDED and ETI-ORIENTED INVESTMENTS

I. CONSTRAINTS AND GUIDELINES

A. Minimum Requirements

1. Management must have compiled a significant track record involving relevant business experience and have demonstrated a reasonable level of senior management and director stability.

2. The entity in which the investment is made must be reasonably capitalized on a post-transaction basis.

3. Alternative investments may include but are not limited to:

   Patient Capital - investments in the equity or debt of public or alternative companies to pursue long-term strategies aimed at maximizing shareholder value through capital investment;

   Transaction Capital - investment in the equity or debt of a public or alternative company to pursue a transaction strategy involving an acquisition, merger or purchase of another company or its assets;

   Recapitalizations - investments in the equity or debt of a public or alternative company designed to restructure the outstanding capital profile of that company, including debt and equity buy-backs, exchange offers and refinancing;

   Strategic Capital - a friendly investment in a public company to augment such company's defenses against unfriendly or hostile takeover attempt;

   Restructuring Capital - investment in the equity or debt of a public or alternative company pursuing a leveraged, management or employee buy-out that may result in a significant change in ownership or control;

   Equity or Debt Secondary Investments - investment in minority equity or debt positions of public or alternative companies purchased from third party investors;

Later Stage Development Capital - investment in the equity or debt of alternative companies in the later stages of development that do not have or have limited access to public equity or debt financing or institutional financing;

Economically Targeted Investments (ETIs) – investment in the equity or debt of a public or private company located within the Hartford area (ETIs should be executed only if their investment return objectives are consistent with those of the broader alternative investments portfolio); and

Alternative investments including unconventional investments such as credit enhancements (e.g., letters of credit), lease financing, collateralizations, project finance, off-balance sheet financing, energy, independent power production or co-generation, or strategic investment in commodities or natural resources.

B. Maximum Limitations

Maximum allocation will be determined according to current asset allocation policy.

C. Restricted Countries and Other Provinces

The entity in which the investment is made must be restricted from having operations in or investments in any firms doing business with or having operations in countries or other provinces in which the MERF might be restricted from doing business.

D. Due Diligence

A due diligence review by the AIC will be conducted to include the elements contained in Section VIII of the Alternative Investments Guidelines. There shall be an initial "Phase I" due diligence performed, and a second "Phase II" due diligence then conducted on the recommendation of the City Treasurer.

E. Guidelines

1. Methods of Participation

The MERF will generally participate in limited partnerships. Depending on the projected growth of the alternative investment portfolio, the City Treasurer and Commission may choose to explore more direct, control-oriented investment structures in the future.

2. Type of Allowable Investments

Any appropriate investment opportunity that has the potential for returns superior to traditional investment opportunities and that is not otherwise prohibited by MERF's investment policies or by law.

3. Fees

All fees should be negotiated and should be at then prevailing market rates. Market conditions should be taken into account to determine the appropriate level of fees, preferred returns, profit splits, and levels of equity contributions by the general partners, etc.

II. STRATEGY

A. Allocation

MERF should be selective and cautious and invest such assets as are allocated to each category prudently as opportunities become available. Diversification should be an important consideration.

B. Size

In order to have a portfolio of multiple investments, specific investments in each partnership will be considered at levels between a minimum of $1 million and a maximum of $10 million. These limitations will be reviewed periodically as MERF's assets increase.

III. IMPLEMENTATION

A. Staff Requirements

Given current staffing, appropriate staff will be assigned to work with the AIC.

B. Legal Counsel

Due to the complex nature of alternative investments, the Commission recognizes that specialized legal counsel may need to be retained by the City Treasurer and Pension Commission on an as-needed basis.

C. Procedures

Staff and the AIC will develop any needed procedures in addition to those adopted herein by the Commission.

IV. GOVERNANCE

A. Voting

In the case of limited partnership investments, the partnership agreement will dictate the manner of voting proxies in portfolio companies. However, the MERF should endeavor to establish itself as a material investor in each limited partnership program.

B. MERF Representation

As circumstances dictate, the MERF may wish to retain the right to have an independent representative or representatives of MERF appointed to a partnership's advisory Board/Committee. Furthermore, the MERF should allow for the possibility to retain the right to have such representative participate in other select committees at the portfolio company level (e.g. Board of Directors, Audit Committee, Executive Committee, or Compensation Committee).

C. Board of Directors' Visitation Rights

As circumstances dictate, the MERF should obtain the right to attend, as an observer, a portfolio company Board of Directors' meetings.

D. Board of Directors' Composition

As circumstances dictate, the MERF should obtain agreements as to the composition of portfolio company Board of Directors, including guidelines on the number of outside Directors and the composition of key committees.

E. Special Voting Rights and Other Controls

As circumstances dictate, MERF should obtain special class voting rights or other controls with respect to specific corporate governance matters such as proposals deemed contrary to the MERF's interest.

V. MONITORING

A. Frequency and Types of Monitoring Reports

See Alternative Investments Guidelines in Section X.

B. Performance

Performance (rate of return) will be assessed relative to:

1. Actual financial performance by a partnership as compared to its original plan;

2. Risk undertaken; and

3. The performance of the partnership against its *pro forma* operating results, applicable competitors, similar partnerships of the same vintage year, the alternative investment portfolio and overall investment portfolio.

C. Adherence to Strategy

The business performance of the partnership (i.e., its ability to achieve objectives and goals) will be judged relative to the original strategies, objectives and goals, with consideration given to relevant changes in circumstances.

D. MERF Reports

Quarterly reports, if requested, and at least annual reports will be provided to the MERF and MERF staff by each partnership.

VI. REVIEW AND MODIFICATION OF ALTERNATIVE INVESTMENTS GUIDELINES

The City Treasurer and Pension Commission may review these guidelines from time to time to determine if modifications are necessary or desirable.